

REMARKS

By this Amendment, claims 2, 5-6, 10-11, 13-14, 18, 20, 22-25, 29, 31-32, 35, 38-39 and 43-45 are amended. Claims 3, 15-17, 19 and 30 remain in the application. Thus, claims 2-3, 5-6, 10-11, 13-20, 22-25, 29-32, 35, 38-39 and 43-45 are active in the application. Reexamination and reconsideration of the application are respectfully requested.

In item 2 on page 2 of the Office Action, claims 5 and 11 were objected to because of the identified informalities. In particular, claims 5 and 11 were each amended in the November 22, 2004 Amendment to depend from claim 2 instead of claim 44. However, the number "44" was not crossed out in claims 5 and 11 to properly indicate the amendments to the dependencies of claims 5 and 11. Claims 5 and 11 have each been properly amended herein to depend from claim 2. Accordingly, the Applicants respectfully request the Examiner to withdraw the objection to claims 5 and 11.

In item 3 on page 3 of the Office Action, claims 2-3, 11, 13-19, 22-23, 30-34 and 44 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rangan et al. (U.S. 6,493,872) in view of Alexander et al. (U.S. 6,177,931). This rejection is believed to be moot with respect to claims 33-34 in view of the cancellation of these claims in the November 22, 2004 Amendment.

This rejection is respectfully traversed for the following reasons.

The present invention provides a novel content providing system that allows for a first content, such as a digital television program, to be broadcast nationally over a satellite broadcasting system, for example, and for a second content, such as a regional commercial message (CM), which is to be interrelated to the first content, to be inserted into the nationally broadcast digital television broadcast and played on the television of a subscriber of the satellite broadcasting system.

Prior to the advent of nationwide satellite television broadcasting, broadcast programs may have originated from a national key station, but the broadcast programs were first distributed to regional broadcasters which in turn provided the broadcast programs to customers in the regional station's region. Furthermore, commercial messages of local interest could then be inserted into the broadcast program of the regional broadcasters. For instance, a Washington, DC restaurant could pay for commercial messages to be inserted into a broadcast program that was broadcast from a Washington, DC area regional broadcaster to subscribers in the Washington, DC area.

However, with the increasing popularity of and demand for national satellite television broadcasting, programs are being broadcast nationwide from a national key station via a national satellite broadcasting network. Such national satellite television broadcasting obviates the need for regional broadcasters to broadcast the program data over a particular region. While satellite television subscribers are now able to retrieve national broadcasting, regional broadcasters are preempted from inserting localized commercial messages into the nationally broadcast program data. Accordingly, localized commercial messages cannot be inserted into the nationally broadcast program data unless an individual or entity is willing to pay for his or her advertisements to be broadcast over the entire nation.

The present invention solves the above problems by providing a content providing system, in addition to a terminal and a server which are used in the content providing system, in which a first content to be broadcast through a digital broadcasting network and a second content, which is stored on a network, are interrelated with each other and made available to subscribers of the digital broadcasting network.

The terminal of the present invention receives a first content (program) to be broadcast while fetching a second content (CM) stored on a network. A plurality of second contents are stored on the network, and each second content is assigned a URL indicating where each second content is stored on the network. Further, the first content is embedded with tag information which indicates attributes that are related to the second content to be interrelated with the first content for reproduction and output.

The server of the present invention communicates with the terminal connected thereto over the network, and the terminal notifies, to the server, tag information embedded in a first content to be broadcast which indicates attributes related to a second content to be interrelated with the first content for reproduction and output and at least one of location information and information concerning a user which are set in the terminal.

As defined in lines 9-17 on page 16 of the original specification (lines 18-25 on page 14 of the substitute specification) and as recited in each of claims 44, 13, 22 and 31, the tag information embedded in the first content interrelates the first content and a second content with each other. The tag information is typically a URL, which is an address of the CM (second content) to be inserted in the program (first content). In order to allow each local station to insert regional CMs, the tag information is presumed to be a CM sponsor code, which indicates a

specific sponsor of the CM, and a product code, which indicates a specific product. The tag information, however, does not have to be associated with the content of a program (first content).

The terminal of claim 44 is recited as comprising URL specifying means for specifying at least one URL assigned to the second content to be interrelated with the first content for reproduction and output based on a table which associates: the tag information, at least one of location information and information concerning a user which are set in the terminal, and a URL indicating from where the second content is to be fetched.

The terminal of claim 13 is recited as being operable to specify any one URL based on a table which associates: the tag information embedded in the received first content, at least one of location information and information concerning a user which are set in the terminal, and a URL indicating from where the second content is to be fetched. The terminal of claim 13 is also recited as being operable to fetch the second content having the URL assigned thereto.

The terminal of claim 22 is recited as comprising URL inquiry means which notifies a server provided on the network of the tag information embedded in the first content and of at least one of location information and information concerning a user which are set in the terminal, and which inquires about at least one URL assigned to the second content to be interrelated with the first content for reproduction and output.

The server of claim 31 is recited as comprising URL specifying means for specifying at least one URL assigned to the second content to be interrelated with the first content for reproduction and output based on a table which associates: the tag information notified by the terminal, at least one of location information and the information concerning the user notified by the terminal, and a URL indicating from where the second content is to be fetched.

As mentioned above and as recited in each of claims 44, 12, 22 and 31, the target information of the present invention interrelates the first content and the second content. For example, the tag information is presumed to be a CM sponsor code and a product code, and does not have to be associated with the first content. Therefore, in accordance with the URL specifying means of claims 44 and 31, the terminal of claim 13 and the URL inquiry means of claim 22, even when the terminal receives the same first content, the URL specifying means and URL inquiry means can also specify (or inquire of) the URLs of the different second contents according to an advertising period or a user's watching status regardless of the contents of the

first content (see, for example, Figures 15-16 of the present invention). Furthermore, since the tag information interrelates the first content and the second with each other, the second content can be differently retrieved according to the advertising period or the user's watching status regardless of the contents of the first content.

Rangan et al. discloses that a Web TV in a user's home (Figure 12) receives both a video broadcast stream 127 and an annotation data stream 125 including a URL. Rangan et al. discloses that the Web TV combines the video broadcast stream 127 with the annotation data stream 125 to be displayed (see Column 21, line 58 to Column 22, line 42). Even if it is assumed that the video broadcast stream 127 of Rangan et al. corresponds to the first content of the present invention and that the annotation data stream 125 of Rangan et al. corresponds to the second content of the present invention, where such first content and second content are combined with each other for display, Rangan et al. does not disclose, suggest or even contemplate that at least one of location information and information concerning the user which are set in the terminal is used in order to fetch (or inquire of) the second content, as recited in claims 44, 13, 22 and 31.

Alexander et al. discloses that a viewer terminal retrieves advertising messages by using an EPG (Electronic Program Guides) database for display according to programs which are selected by a user. In particular, Alexander et al. discloses that the viewer terminal retrieves, from a SIP (Show Information Package), a category label corresponding to a television program that is selected by a user based on information from a real-time clock and a tuner setting using the EPG, and the viewer terminal specifies advertising messages to be retrieved from a database stored in a RAM at the viewer terminal or from a web site if the viewer terminal is connected to the Internet (see Column 33, lines 44-65). In addition, Alexander et al. discloses that a zip code may be stored in a memory for customizing an overlay message to an advertisement on a local geographic basis (see Column 32, lines 39-55).

However, according to Alexander et al., the retrieved category label is associated with the television program. In fact, the viewer terminal specifies a terminal program based on the channel selected by a user and the time, and the viewer terminal specifies the advertising messages to be retrieved based on the category label that is associated with the specified program.

In contrast, as described above, the tag information of claims 44, 13, 22 and 31 interrelates the first content and the second content with each other. Therefore, for example, the second content can be differently retrieved according to an advertising period or a user's watching status regardless of the contents of the first content. However, the tag information of the present invention is not associated with the first content, whereas the category label of Alexander et al. is associated with the television program.

Furthermore, the category label of Alexander et al. is only information for identifying a television program. Therefore, the category label of Alexander et al. differs from the tag information recited in each of claims 44, 13, 22 and 31, which is information that interrelates the first content and the second content with each other, and which does not have to be associated with the first content.

Moreover, according to the system of Alexander et al., the viewer terminal specifies category labels corresponding to the television program by using the EPG database. However, Alexander et al. neither discloses nor suggests that the category label is embedded in the television program data, whereas claims 44, 13, 22 and 31 each recite that the tag information is embedded in the first content.

Rangan et al. discloses that information associated with the broadcast content is embedded in the broadcast content itself. In contrast thereto, Alexander et al. discloses the EPG database, and it is clear that the broadcast content of Rangan et al. is markedly different from the EPG database in terms of technical effect and purpose. Moreover, Rangan et al. and Alexander et al. do not disclose or suggest that the EPG database is associated with the broadcast content. Thus, one skilled in the art to which the present invention pertains would not contemplate applying the EPG database of Alexander et al. to the broadcast content of Rangan et al.

Nonetheless, when it is assumed that the system of Alexander et al. is applied to the system of Rangan et al. to devise a terminal (hereinafter, referred to as "the combination apparatus"), the combination apparatus retrieves, by using the EPG database, a category label for identifying a broadcast program, and specifies, based on the retrieved category label, an advertising message to be retrieved. Then, the combination apparatus associates the broadcast program with the retrieved advertising message for display.

However, since the category label which is retrieved by the combination apparatus is only information for identifying a broadcast program, the combination apparatus clearly does not

disclose or suggest a terminal comprising URL specifying means for specifying at least one URL assigned to the second content to be interrelated with the first content for reproduction and output based on a table which associates: the tag information, at least one of location information and information concerning a user which are set in the terminal, and a URL indicating from where the second content is to be fetched, as recited in claims 44, 13 and 22.

Similarly, the combination apparatus clearly does not disclose or suggest a server comprising URL specifying means for specifying at least one URL assigned to the second content to be interrelated with the first content for reproduction and output based on a table which associates: the tag information notified by the terminal, at least one of location information and the information concerning the user notified by the terminal, and a URL indicating from where the second content is to be fetched, as recited in claim 33.

Furthermore, the combination apparatus clearly cannot achieve the above-described effects of the terminal and server of claims 44, 13, 22 and 31, where in accordance with the URL specifying means of claims 44 and 31, the terminal of claim 13 and the URL inquiry means of claim 22, even when the terminal receives the same first content, the URL specifying means and URL inquiry means can also specify (or inquire of) the URLs of the different second contents according to an advertising period or a user's watching status regardless of the contents of the first content, and since the tag information interrelates the first content and the second with each other, the second content can be differently retrieved according to the advertising period or the user's watching status regardless of the contents of the first content.

Therefore, as clearly set forth above, Rangan et al. and Alexander et al., either individually or in combination, clearly fail to disclose or suggest each and every limitation of claims 44, 13, 22 and 31.

Accordingly, no obvious combination of Rangan et al. and Alexander et al. would result in the inventions of claims 44, 13, 22 and 31 since Rangan et al. and Alexander et al., either individually or in combination, clearly fail to disclose or suggest each and every limitation of claims 44, 13, 22 and 31.

Therefore, claims 44, 13, 22 and 31, as well as claims 2-3, 5-6, 10-11, 14-20, 45, 23-25, 29-30 and 32 which depend therefrom, are clearly patentable over Rangan et al. and Alexander et al.

In item 4 on page 14 of the Office Action, claims 35 and 45 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rangan et al. in view of Alexander et al. and further in view of Hidary et al. (U.S. 5,774,664).

Claim 35 recites a terminal for receiving a first content to be broadcast through a digital broadcasting network, while fetching a second content for regional use which is stored on a network, and interrelating the received first content and the fetched second content with each other for reproduction and output. Claim 35 recites that a plurality of second contents are stored on the network, each second content is assigned a URL indicating where the second content is stored on the network, and the first content is embedded with a table for specifying the second content to be interrelated with the first content for reproduction and output. The terminal of claim 35 comprises, in part, fetch means for fetching the second content stored on the network. The fetch means is further recited in claim 35 as referring to the table embedded in the first content and at least one of the location information and information concerning a user which is set in the terminal to specify a URL related to a second content for use in the area of the terminal, and for fetching the second content based on the specified URL.

Accordingly, claim 35 recites that a table for specifying the second content is embedded in the first content, and a URL related to the second content for use in the area of the terminal is specified based on the table embedded in the first content and at least one of location information and information concerning a user which are set in the terminal.

As acknowledged by the Examiner, Rangan et al. fails to disclose or suggest that a table for specifying the second content is embedded in the first content, and a URL related to the second content for use in the area of the terminal is specified based on the table embedded in the first content and at least one of location information and information concerning a user which are set in the terminal.

The Examiner contends that Alexander et al. discloses this limitation. However, for the reasons given above, Alexander et al. clearly does not disclose or suggest that the category label (table or tag information) is embedded in the television program data (first content).

Therefore, despite the Examiner's assertion to the contrary, neither Rangan et al. nor Alexander et al. disclose or suggest each and every limitation of claim 35.

Furthermore, Hidary et al. merely discloses a system which broadcast-transmits a URL and a time stamp to a user so that the user is notified when the Web pages addressed by the URLs are displayed by a program.

However, similar to Rangan et al. and Alexander et al., Hidary et al. also clearly fails to disclose or suggest that a table for specifying the second content is embedded in the first content, and a URL related to the second content for use in the area of the terminal is specified based on the table embedded in the first content and at least one of location information and information concerning a user which are set in the terminal, as recited in claim 35.

Accordingly, Rangan et al., Alexander et al. and Hidary et al., either individually or in combination, clearly fail to disclose or suggest each and every limitation of claim 35. Therefore, no obvious combination of Rangan et al., Alexander et al. and Hidary et al. would result in the invention of claim 35 since Rangan et al., Alexander et al. and Hidary et al., either individually or in combination, clearly fail to disclose or suggest each and every limitation of claim 35.

Thus, claim 35 is clearly allowable over Rangan et al., Alexander et al. and Hidary et al.

In item 5 on page 17 of the Office Action, claim 38 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Rangan et al. in view of Alexander et al. and further in view of Hidary et al. and Saito (U.S. 5,901,339).

Claim 38 recites a terminal for receiving a first content to be broadcast, while fetching a second content stored on a network, and interrelating the received first content and the fetched second content with each other for reproduction and output. As recited in claim 38, a plurality of second contents are stored on the network, the first content is scrambled, each second content is embedded with key information used to descramble the first content and is assigned with a URL indicating where the second content is stored on the network, and the first content is embedded with a table for specifying the second content to be interrelated with the first content for reproduction and output. The terminal of claim 38 is recited as comprising, in part, fetch means for fetching the second content stored on the network. The fetch means of the terminal of claim 38 is recited as referring to the table embedded in the first content received by the reception means and at least one of location information and information concerning a user which are set in the terminal to specify a URL of the second content, and as fetching the second content having the URL assigned thereto.

Accordingly, claim 38 recites that a table for specifying the second content is embedded in the first content, and a URL related to the second content for use in the area of the terminal is specified based on the table embedded in the first content and at least one of location information and information concerning a user which are set in the terminal.

As clearly demonstrated above, Rangan et al., Alexander et al. and Hidary et al., either individually or in combination, clearly fail to disclose or suggest that a table for specifying the second content is embedded in the first content, and a URL related to the second content for use in the area of the terminal is specified based on the table embedded in the first content and at least one of location information and information concerning a user which are set in the terminal, as recited in claims 35 and 38.

However, Saito merely discloses a program viewing system in which decode data may be transmitted over a second interface. Despite the Examiner's assertion to the contrary, Rangan et al., Alexander et al., Hidary et al. and Saito, either individually or in combination, clearly fail to disclose or suggest that a table for specifying the second content is embedded in the first content, and a URL related to the second content for use in the area of the terminal is specified based on the table embedded in the first content and at least one of location information and information concerning a user which are set in the terminal, as recited in claims 35 and 38.

Accordingly, no obvious combination of Rangan et al., Alexander et al., Hidary et al. and Saito would result in the inventions of claims 35 and 38 since Rangan et al., Alexander et al., Hidary et al. and Saito, either individually or in combination, clearly fail to disclose or suggest each and every limitation of claims 35 and 38.

Therefore, claims 35 and 38, as well as claims 39 and 43 which depend therefrom, are clearly patentable over Rangan et al., Alexander et al., Hidary et al. and Saito.

Furthermore, the Applicants submit that Hidary et al. and Saito also fail to cure the deficiencies of Rangan et al. and Alexander et al. for failing to disclose or suggest each and every limitation of claims 44, 13, 22 and 31.

Accordingly, claims 44, 13, 22, 31, 35 and 38, as well as claims 2-3, 5-6, 10-11, 14-20, 23-25, 29-30, 32, 39, 43 and 45 which depend therefrom, are clearly allowable over Rangan et al., Alexander et al., Hidary et al. and Saito.

In item 6 on page 21 of the Office Action, claims 5-6, 10, 20, 24-25 and 29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rangan et al. in view of Alexander et al. and Saito and further in view of Kato et al. (U.S. 6,301,663). Further, in item 7 on page 22 of the Office Action, claims 39 and 43 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rangan et al. in view of Alexander et al., Hidary et al. and Saito and further in view of Kato et al.

As demonstrated above, Rangan et al., Alexander et al., Hidary et al. and Saito, either individually or in combination, clearly fail to disclose or suggest each and every limitation of claims 13, 22, 31, 35, 38 and 44. Kato et al., however, clearly fails to cure the deficiencies of Rangan et al., Alexander et al., Hidary et al. and Saito for failing to disclose or suggest each and every limitation of claims 13, 22, 31, 35, 38 and 44.

Therefore, no obvious combination of Rangan et al., Alexander et al., Hidary et al., Saito and Kaito et al. would result in the inventions of claims 13, 22, 31, 35, 38 and 44.

Because of the clear distinctions discussed above, it is submitted that the teachings of Rangan et al., Alexander et al., Hidary et al., Saito and Kaito et al. clearly do not meet each and every limitation of claims 13, 22, 31, 35, 38 and 44.

Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time the invention was made would not have been motivated to modify Rangan et al., Alexander et al., Hidary et al., Saito and Kaito et al. in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 13, 22, 31, 35, 38 and 44.

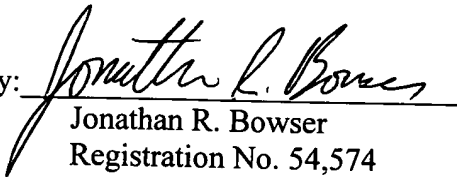
Therefore, it is submitted that the claims 13, 22, 31, 35, 38 and 44, as well as claims 2-3, 5-6, 10-11, 14-20, 23-25, 29-30, 32, 39, 43 and 45 which depend therefrom, are clearly allowable over the prior art as applied by the Examiner.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice thereof is respectfully solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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